Amendments to the Claims:

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-34 (Cancelled)

Claim 35 (Previously Presented): A method of altering an amount of an unsaturated fatty acid in a seed of a plant comprising decreasing a fatty acid desaturase activity in the seed by transforming the plant with a nucleic acid comprising a sequence which encodes a fatty acid hydroxylase.

Claim 36 (Cancelled)

Claim 37 (Cancelled)

Claim 38 (Previously Presented): The method of claim 35, wherein said plant is selected from the group consisting of rapeseed, *Crambe, Brassica juncea,* canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.

Claim 39 (Previously Presented): A method of altering an amount of an unsaturated fatty acid in a seed by decreasing a fatty desaturase activity in the seed, said method comprising

(a) transforming a plant cell with a nucleic acid comprising a sequence which encodes a fatty acid hydroxylase enzyme;
(b) growing a seed-bearing plant from the transformed plant cell of step (a); and
(c) identifying a seed from the plant of step (b) with the altered amount of the unsaturated fatty acid in the seed.

Claim 40 (Cancelled)

Claim 41 (Cancelled)

Claim 42 (Previously Presented): The method of claim 39, wherein said plant is selected from the group consisting of rapeseed, *Crambe, Brassica juncea,* canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.

Claim 43 (New): A method of altering an amount of an unsaturated fatty acid in a seed of a plant comprising decreasing a fatty acid desaturase activity in the seed by transforming the plant with a nucleic acid comprising a sequence which encodes a mutant form of a fatty acid desaturase.

Claim 44 (New): The method of claim 43, wherein said plant is transformed with a nucleic acid comprising a sequence which encodes a dominant negative mutant of a fatty acid desaturase.

Claim 45 (New): The method of claim 43, wherein said plant is transformed with a nucleic acid comprising a sequence which encodes a mutant fatty acid desaturase in which one or more essential histidine residues have been mutated.

Claim 46 (New): The method of claim 43, wherein said plant is selected from the group consisting of rapeseed, *Crambe, Brassica juncea,* canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.

Claim 47 (New): A method of altering an amount of an unsaturated fatty acid comprising

(a) transforming a plant cell with a nucleic acid comprising a sequence which encodes a dominant negative mutant of a fatty acid desaturase;
(b) growing a seed-bearing plant from the transformed plant cell of step (a); and
(c) identifying a seed from the plant of step (b) with the altered amount of the unsaturated fatty acid in the seed.

Claim 48 (New): The method of claim 47, wherein said nucleic acid comprises a sequence which encodes the dominant negative mutant of a fatty acid desaturase in which one or more essential histidine residues have been mutated.

Claim 49 (New): The method of claim 47, wherein said hydroxylase having one or more catalytically essential histidine residues mutated inhibits desaturase activity.

Claim 50 (New): The method of claim 47, wherein said plant is selected from the group consisting of rapeseed, *Crambe, Brassica juncea,* canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.